Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-15 are pending in the application, with claim 1 being the only independent claim. Claim 1 has been amended to more clearly point out the claimed subject matter. Descriptive support for the amendments to claim 1 are found in the specification as filed, particularly at page 12, lines 23-24 and at page 13, lines 20-25. These changes are believed to introduce no new matter, and their entry is respectfully requested. This amendment puts the application in condition for allowance, or alternatively in better form for appeal.

Based on the above amendment and the following Remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Advisory Action

In the Advisory Action mailed October 23, 2003, the Examiner characterized the Applicant's arguments as "the invention being larger scale". (Advisory Action, Paper No. 10, page 2). The Applicant respectfully disputes the Examiner's characterization of the Applicant's arguments. The Applicant did not argue that the present invention was a "larger scale" version of the prior art. Rather, the Applicants argued, and here reiterate, that the presently claimed invention has an *entirely different structure* than the prior art, and functions in a different way. The different structure of the present invention presents many benefits over the prior art. One of these benefits is that the present invention can be built on a larger scale than the prior art. Due to inherent limitations in '937 patent, namely, the need to put the substance to be filtered in a bag, the '937 apparatus *is incapable of large-scale industrial application.* The present invention is not merely a scaled-up version of the apparatus of the '937 patent. Rather, it is a wholly different design that does not suffer from the limitations of the apparatus of the '937 patent. The different design of the present invention is a patentable improvement over anything in the prior art.

The cases cited by the Examiner in the Advisory Action are thus irrelevant to the patentability of the present invention. The present invention does not differ solely in size or dimensions; rather it is a completely different structure, and it operates in a different way. The Applicant thus respectfully requests that the Examiner reconsider the arguments presented in the Amendment and Reply filed on September 29, 2003, in response to the Office Action of July 28, 2003 (PTO Prosecution File Wrapper Paper No. 8). These arguments are reproduced below.

Claim Rejection Under 35 U.S.C. § 102

Claim 1 was rejected under 35 USC § 102(b) as allegedly anticipated by U.S. Pat. No. 4,836,937 ("the '937 patent"). The Applicants respectfully submit that claim 1, as amended, is not anticipated by the '937 patent.

Newly amended claim 1 recites "a holding chamber for receiving a liquid and solids mixture, the holding chamber having four walls and a floor, and comprising a ramp for vehicular access, wherein the four walls and the floor are comprised of concrete...." Nothing in the '937 patent discloses or suggests a holding chamber made of concrete and comprising a ramp for vehicular access. But these aspects of the present invention allow "a backhoe loader or front shovel to remove dry solids from the chamber after the dewatering process is complete" (see specification at page 13, lines 21-22), a feature that is not shared by the apparatus discussed in the '937 patent.

This is a major difference between the apparatus of the invention and that of the '937 patent: the apparatus of the invention is useful for large-scale industrial dewatering operations, whereas the '937 patent merely discusses a much smaller scale dewatering apparatus that is not easily adaptable to the larger scale required for large-scale industrial dewatering. But this is more than just a difference in scale. While the '937 patent involves a "bag [that] defines a variable volume region and may be evacuated to compress the cake against the filters..." ('937 patent, abstract), the invention in this case involves a "membrane forming a substantially air-tight seal" over the concrete holding chamber. The '937 patent, with its bag of cake material, cannot provide the large-scale dewatering needed by ongoing industrial processes, nor the vehicular access to the dried product that is needed to remove the much larger quantities of dried sludge. In fact, the containers in which the '937 patent suggests for use with the invention are 55 gallon drums, or drums with up to 170-200 cubic foot capacity. (See '937 patent, col. 3, lines 45-46). The present invention, however, can be scaled up to the much larger volumes needed by industry. In this respect, the presently claimed invention solves the problem encountered by many industries of large-scale dewatering that the apparatus of the '937 patent could not solve.

Thus, because the '937 patent does not disclose or suggest the dewatering apparatus of the present invention, the rejection of claim 1 under § 102(b) should be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

1. Rejection of claims 2-8 and 12-15 over 4,836,937 in view of 5,277,814

Claims 2-8 and 12-15 were rejected under 35 U.S.C. § 103 as allegedly having been obvious from the '937 patent in view of U.S. Pat. No. 5,277,814 ("the '814 patent"). The Applicants respectfully request reconsideration of this rejection in view of the foregoing amendment to claim 1. All claims depend from claim 1, and thus all claims are directed to a dewatering apparatus having "a holding chamber for receiving a liquid and solids mixture, the holding chamber having four walls and a floor, and comprising a ramp for vehicular access, wherein the four walls and the floor are comprised of concrete...." All claims also specify "a membrane forming a substantially air-tight seal over said chamber and in substantial contact with the liquid and solids mixture." Neither the '937 patent nor the '814 patent, alone or in combination, discloses or suggests such an apparatus.

As discussed above, the only "membrane" employed in the '937 patent is a bag that can be evacuated to compress a sludge cake against filters, thus leaving a bag of dried sludge cake. The scale of such an apparatus is obviously limited. In this respect, the '814 patent is of no help. The '814 patent does not discuss a membrane at all, let alone a membrane forming a substantially air-tight seal over the chamber in substantial contact with the contents of the chamber. While the '814 patent does discuss large beds for its reaction mixtures, it provides no membrane for distributing a pressure differential across the contents of a holding chamber. Thus, at best, the combination of the '937 and '814 patents would involve a bag in a relatively large holding chamber. But this combination is not what is presently claimed, and thus does not establish *prima facie* obviousness of the claimed invention.

Indeed, the superior benefits of the present invention demonstrate that it would not have been obvious from the combination of the '937 and '814 patents. It is unlikely that such a combination would work, because the volume and weight of a bag of dried sludge would limit the materials from which such a bag could be constructed, and would likely make such an operation prohibitively expensive. But even if it did work, removal of such a bag of dried sludge would not be easy, and breakage would clearly be a problem. The present invention, on the other hand, provides for vehicular access into the chamber itself, thus allowing, e.g., a backhoe to be used to remove the dried sludge.

The combination of the '937 and '814 patents fails to include all of the aspects of the presently claimed invention, and thus the combination does not establish a *prima facie* case of obviousness. Furthermore, the benefits of the present invention over any apparatus that is a hybrid of those discussed in the '937 and '814 patents provide additional evidence of the non-obviousness of the present claims. Because the subject matter of the rejected claims is neither disclosed nor suggested by the '937 patent, the '814 patent, or the combination, the Applicants respectfully request that the Examiner reconsider these rejections, and that they be withdrawn.

2. Rejection of claims 9-11 over 4,836,937 in view of 5,277,814 and 5,118,427

Claims 9-11 were rejected under 35 U.S.C. § 103 as allegedly having been obvious from the combination of the '937, 814, and '427 patents. The Applicants respectfully request reconsideration of this rejection in view of the foregoing amendment to claim 1. As discussed above, all claims depend from claim 1, and thus all claims are directed to a dewatering apparatus having "a holding chamber for receiving a liquid and solids mixture, the holding chamber having four walls and a floor, and comprising a ramp for vehicular access, wherein the four walls and the floor are comprised of concrete...." All claims also specify "a membrane forming a substantially air-tight seal over said chamber and in substantial contact with the liquid and solids mixture." None of the '937, '814, or '427 patents, alone or in combination, discloses or suggests such an apparatus.

The Examiner cited the '427 patent for its teaching of vibrating means for agitating. But the '427 patent does not disclose or suggest those parts of the claimed invention lacking from the combination of the '937 and '814 patents, namely, a concrete holding chamber with a substantially airtight membrane over it. The benefits of this invention were discussed above. Nothing in the combination of the '937, '814, and '427 patents suggests an apparatus with such components and thus, as in the previous rejection, there is no *prima facie* case of obviousness. Furthermore, the superior benefits of large scale and easy removal of dried sludge conclusively demonstrate the *non*-obviousness of the claimed invention over the cited combination.

For these reasons, the Applicants respectfully requests that the Examiner reconsider this rejection, and that it be withdrawn.

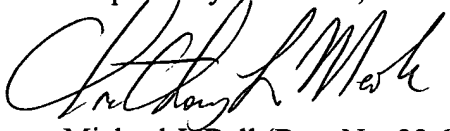
Conclusion

Applicants believe that this amendment and reply constitutes a complete response to the Office Action. Applicants further believe that they have adequately provided for any extensions of time or required fees or petitions in order to have this paper considered and/or keep the application pending. However, if extensions of time or any other fees or petitions are necessary, then applicants hereby petition, under 37 C.F.R. § 1.136(a) or any other rule, and the fees therefor (including fees for net addition of claims or other petition fees) are hereby authorized to be charged to our Deposit Account No. 08-3038, referencing docket number 02514.0007.NPUS01.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Michael Stimson at (202) 383-6906.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



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